

What is claimed:

1. An indwelling catheter to drain urine from a bladder to a location adjacent to a urinary sphincter muscle in a urinary tract which also includes a urinary canal extending from the sphincter muscle to an exterior opening, comprising:

5 a main body having a distal end, a proximal end and a length sufficient to position the distal end within the bladder and to position the proximal end adjacent to and distal of the sphincter muscle within the urinary tract, the main body defining an urine drainage interior passageway extending from the distal end to the proximal end;

10 a balloon attached to the distal end of the main body, the balloon expandable in size within the bladder to maintain the distal end in the bladder and restrain the main body against proximal movement within the urinary tract from a use position, the use position locating the distal end of the main body in the bladder and the proximal end of the main body adjacent to and distal of the
15 sphincter muscle;

an inflation tube having a distal end, a proximal end and a length extending between the distal end proximal ends, the distal end connected to the main body, the length sufficient to extend from the main body through the urinary canal to the exterior opening when the main body is in the use position, the
20 inflation tube and the main body defining an inflation passageway extending from the proximal end of the inflation tube to the balloon through which to deliver inflation fluid for expanding the balloon; and

a coiled section of the inflation tube formed at a position along the inflation tube to locate the coiled section within the urinary canal adjacent to and
25 proximal of the sphincter muscle when the main body is located in the use position, the coiled section interacting with a constriction of the urinary tract by the sphincter muscle to restrain the main body against distal movement within the urinary tract from the use position.

2. An indwelling catheter as defined in claim 1, wherein:
the coiled section is resilient in a transverse dimension.

3. An indwelling catheter as defined in claim 1, wherein:
the coiled section is resilient in a longitudinal dimension.
4. An indwelling catheter as defined in claim 1, wherein:
the coiled section is resilient in a transverse dimension and in a longitudinal dimension.
5. An indwelling catheter as defined in claim 1, wherein:
the coiled section comprises a plurality of individual adjacent coils each formed by the inflation tube.
6. An indwelling catheter as defined in claim 5, wherein:
each coil of the coiled section is resilient in a transverse dimension and the coils of the coiled section are collectively resilient in a longitudinal dimension.
7. An indwelling catheter as defined in claim 6, wherein:
the resilient individual coils decrease in the transverse dimension upon elongation of the coiled section in the longitudinal dimension.
8. An indwelling catheter as defined in claim 1, wherein:
the coiled section has an outer transverse dimension, the main body has an outer transverse dimension, and the outer transverse dimension of the coiled section is greater than the outer transverse dimension of the main body.
9. An indwelling catheter as defined in claim 8, wherein:
the coiled section has a center opening having an inner transverse dimension, and the inner transverse dimension of the coiled section is substantially the same as the exterior transverse dimension of the main body.
10. An indwelling catheter as defined in claim 9, in combination with:
an insertion tool for connection to the indwelling catheter to move the indwelling catheter within the urinary tract to the use position, the insertion tool having first and second opposite ends and a length sufficient to position the first end within the urinary tract distal of the sphincter muscle while the second end is at the exterior of the urinary canal; and wherein:
the insertion tool extends through the center opening of the coiled section.

11. An indwelling catheter as defined in claim 10, wherein:
the insertion tool has an exterior transverse dimension, and the exterior transverse dimension of the insertion tool is substantially the same as the exterior transverse dimension of the main body.
12. An indwelling catheter as defined in claim 10, further comprising:
a separable connection between the main body and the insertion tool to permit disconnection of the indwelling catheter and the insertion tool upon locating the indwelling catheter in the use position.
13. An indwelling catheter as defined in claim 12, wherein:
the separable connection retains the main body to the insertion tool to permit movement of the insertion tool and the indwelling catheter as a unit when positioning the indwelling catheter in the use position; and
5 the separable connection permits separation of the indwelling catheter and the insertion tool in response to continued proximal movement of the insertion tool when the expanded balloon restrains the main body against proximal movement from the use position.
14. An indwelling catheter as defined in claim 12, wherein:
the separable connection includes a selectively disconnectable bridging structure extending between the main body and the insertion tool, the bridging structure fastening the main body to the insertion tool when connected,
5 the bridging structure releasing the main body from the insertion tool when the bridging structure is disconnected to permit separation of the indwelling catheter from the insertion tool in response to continued proximal movement of the insertion tool when the expanded balloon restrains the main body against proximal movement from the use position.
15. An indwelling catheter as defined in claim 14, wherein:
the selectively disconnectable bridging structure comprises a cord which extends between the main body and the insertion tool when the bridging structure connects the main body to the bridging tool; and
5 the extension of the cord between the main body and the insertion tool is eliminated when the bridging structure is disconnected.

16. An indwelling catheter as defined in claim 15, wherein:
the insertion tool defines an interior channel extending between the first and second opposite ends of the insertion tool; and
the interior channel of the insertion tool is in fluid communication with
- 5 the interior passageway of the main body when the insertion tool is connected to the indwelling catheter at the separable connection.
17. An indwelling catheter as defined in claim 16, wherein:
the cord also extends from the separable connection through the interior channel of the insertion tool when the bridging structure connects the main body to the insertion tool.
18. An indwelling catheter as defined in claim 16, wherein:
the cord also extends from the separable connection through the interior channel to the second end of the insertion tool when the bridging structure connects the main body to the insertion tool.
19. An indwelling catheter as defined in claim 10, wherein:
the insertion tool defines an interior channel extending between the first and second opposite ends of the insertion tool; and
the interior channel of the insertion tool is in fluid communication with
- 5 the interior passageway of the main body when the insertion tool is connected to the indwelling catheter at the separable connection.
20. An indwelling catheter as defined in claim 1, in combination with:
an insertion tool for connection to the main body to move the indwelling catheter within the urinary tract to the use position, the insertion tool having first and second opposite ends and a length sufficient to position the first
- 5 end within the urinary tract distal of the sphincter muscle while the second end is at the exterior of the urinary canal; and wherein:
the coiled section winds around the insertion tool when the insertion tool is connected to the indwelling catheter.
21. An indwelling catheter as defined in claim 20, further comprising:
a separable connection between the main body and the insertion tool.

22. An indwelling catheter as defined in claim 21, wherein:
the separable connection connects the main body to the insertion tool for movement of the insertion tool and the indwelling catheter as a unit when positioning the indwelling catheter in the use position; and
- 5 the separable connection permits separation of the main body from the insertion tool in response to continued proximal movement of the insertion tool when the expanded balloon restrains the main body against proximal movement from the use position.
23. An indwelling catheter as defined in claim 22, wherein:
the insertion tool is removable from within the coiled section in response to a predetermined amount of proximal movement of the insertion tool in the urinary canal relative to the main body after separation at the separable
- 5 connection.
24. An indwelling catheter as defined in claim 23, wherein:
the coiled section permits substantially unimpeded proximal movement of the insertion tool within the coiled section after separation at the separable connection.
25. An indwelling catheter as defined in claim 22, wherein:
the separable connection includes a selectively disconnectable bridging structure extending between the main body and the insertion tool, the bridging structure fastening the main body to the insertion tool when connected,
- 5 the bridging structure releasing the main body from the insertion tool when the bridging structure is disconnected to permit separation of the indwelling catheter from the insertion tool in response to continued proximal movement of the insertion tool when the expanded balloon restrains the main body against proximal movement from the use position.
26. An indwelling catheter as defined in claim 25, wherein:
the selectively disconnectable bridging structure comprises a cord which extends between the main body and the insertion tool when the bridging structure connects the main body to the insertion tool; and

- 5 the extension of the cord between the main body and the insertion tool is eliminated when the bridging structure is disconnected.
27. An indwelling catheter as defined in claim 26, wherein:
 the insertion tool defines an interior channel extending between the first and second opposite ends of the insertion tool; and
 the interior channel of the insertion tool is in fluid communication with
- 5 the interior passageway of the main body when the insertion tool is connected to the indwelling catheter at the separable connection.
28. An indwelling catheter as defined in claim 27, wherein:
 the cord also extends from the separable connection through the interior channel of the insertion tool when the bridging structure connects the main body to the insertion tool.
29. An indwelling catheter as defined in claim 27, wherein:
 the cord also extends from the separable connection through the interior channel to the second end of the insertion tool when the bridging structure connects the main body to the insertion tool.
30. An indwelling catheter as defined in claim 21, wherein:
 the insertion tool defines an interior channel extending between the first and second opposite ends of the insertion tool; and
 the interior channel of the insertion tool is in fluid communication with
- 5 the interior passageway of the main body when the insertion tool is connected to the indwelling catheter at the separable connection.
31. An indwelling catheter as defined in claim 20, wherein:
 the coiled section maintains a portion of the inflation tube between the coiled section and the proximal end of the main body substantially in alignment with a portion of the insertion tool during movement of the indwelling catheter and
- 5 the insertion tool has a unit within the urinary tract to the use position.
32. An indwelling catheter as defined in claim 20, for use with a syringe having a nozzle, further comprising:
 a valve assembly connected to the proximal end of the inflation tube, the valve assembly including a receptacle by which to connect the nozzle of the

5 syringe for transferring inflation fluid from the syringe into the inflation passageway for inflating the balloon.

33. An indwelling catheter as defined in claim 32, wherein:

the insertion tool has an exterior surface; and

the inflation tube extends along the exterior surface of the insertion tool when the main body is connected to the insertion tool.

34. An assembly of an indwelling catheter and an insertion tool, the indwelling catheter used to drain urine from a bladder to a location adjacent to a urinary sphincter muscle in a urinary tract which also includes a urinary canal extending from the sphincter muscle to an exterior opening, the insertion tool used
5 to move the indwelling catheter within the urinary tract when connected to the indwelling catheter, the assembly comprising:

a main body of the indwelling catheter, the catheter main body having a distal end, a proximal end and a length sufficient to position the distal end within the bladder and to position the proximal end adjacent to and distal of the sphincter
10 muscle within the urinary tract, the catheter main body defining an urine drainage interior passageway extending from the distal end to the proximal end;

a balloon attached to the distal end of the catheter main body, the balloon expandable in size within the bladder;

a main body of the insertion tool, the tool main body first and second
15 opposite ends and a length sufficient to position the first end within the urinary tract distal of the sphincter muscle while the second end is at the exterior of the urinary canal; and

a separable connection between the catheter main body and the tool main body, the separable connection maintaining the insertion tool connected to
20 the indwelling catheter for movement as a unit when positioning the indwelling catheter in a use position, the use position locating the distal end of the catheter main body in the bladder and the proximal end of the catheter main body adjacent to and distal of the sphincter muscle, the separable connection permitting selective separation of the tool main body from the catheter main body in response to

25 proximal movement of the insertion tool when the expanded balloon restrains the catheter main body against proximal movement from the use position.

35. An assembly as defined in claim 34, wherein:

the separable connection includes a selectively disconnectable bridging structure extending between the catheter main body and the tool main body, the bridging structure fastening together the catheter and tool main bodies
5 when the bridging structure connected, the bridging structure releasing the tool and the catheter main bodies from one another when the bridging structure is disconnected to permit separation of the tool main body from the catheter main body in response to continued proximal movement of the insertion tool when the expanded balloon restrains the catheter main body against proximal movement
10 from the use position.

36. An assembly as defined in claim 35, wherein:

the selectively disconnectable bridging structure comprises a cord which extends between the catheter and tool main bodies when the bridging structure connects the catheter and tool main bodies; and
5 the extension of the cord between the catheter and tool main bodies is eliminated when the bridging structure is disconnected.

37. An assembly as defined in claim 36, wherein:

the insertion tool defines an interior channel extending between the first and second opposite ends of the insertion tool; and
the interior channel of the insertion tool is in fluid communication with
5 the interior passageway of the main body when the insertion tool is connected to the indwelling catheter at the separable connection.

38. An assembly as defined in claim 37, wherein:

the cord also extends from the separable connection through the interior channel of the insertion tool when the bridging structure connects the catheter and tool main bodies.

39. An assembly as defined in claim 37, wherein:

the cord also extends from the separable connection through the interior channel to the second end of the insertion tool when the bridging structure connects the catheter and tool main bodies.

40. An assembly as defined in claim 34, wherein:

the tool main body defines an interior channel extending between the first and second opposite ends of the insertion tool; and

the interior channel of the tool main body is in fluid communication
5 with the interior passageway of the catheter main body when the catheter and tool main bodies are connected at the separable connection.

41. An assembly as defined in claim 34, further comprising:

an inflation tube having a distal end, a proximal end and a length
extending between the distal and proximal ends, the distal end connected to the
catheter main body, the length sufficient to extend from the catheter main body
5 through the urinary canal to the exterior opening when the indwelling catheter is
located in the use position, the inflation tube and the catheter main body defining
an inflation passageway extending from the proximal end of the inflation tube to
the balloon through which to deliver inflation fluid for expanding the balloon.

42. An assembly as defined in claim 41, further comprising:

a configuration section of the inflation tube formed at a position along
the inflation tube to locate the configuration section within the urinary canal
adjacent to and proximal of the sphincter muscle when the indwelling catheter is
5 located in the use position, the configuration section interacting with a constriction
of the urinary tract by the sphincter muscle to restrain the catheter main body
against distal movement within the urinary tract from the use position.

43. An assembly as defined in claim 42, wherein:

the configuration section of the inflation tube comprises a coiled
section of the inflation tube which winds around the insertion tool when the
insertion tool is connected to the indwelling catheter.

44. An assembly as defined in claim 43, wherein:

the insertion tool has an exterior surface; and

the inflation tube extends along the exterior surface of the insertion tool when the main body is connected to the insertion tool.

45. An assembly as defined in claim 43, wherein:

the insertion tool is removable from within the coiled section of the inflation tool.

46. An assembly as defined in claim 45, wherein:

the coiled section permits proximal movement of the insertion tool within the coiled section after separation of the catheter and tool main bodies at the separable connection.

47. An assembly as defined in claim 43, wherein:

the coiled section maintains a portion of the inflation tube between the coiled section and the proximal end of the catheter main body substantially in alignment with a portion of the insertion tool during movement of the indwelling catheter and the insertion tool has a unit within the urinary tract to the use position.

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48. An assembly as defined in claim 41, for use with a syringe having a nozzle, further comprising:

a valve assembly connected to the proximal end of the inflation tube, the valve assembly including a receptacle by which to connect the nozzle of the syringe for transferring inflation fluid from the syringe into the inflation passageway for inflating the balloon.

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49. A method of draining urine from a bladder to a position distal of a urinary sphincter muscle in a urinary tract which also includes a urinary canal extending from the sphincter muscle to an exterior opening, comprising:

positioning an indwelling catheter having an inflatable balloon in the urinary tract in a use position in which the indwelling catheter extends from the bladder to a position distally adjacent to the sphincter muscle;

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extending an inflation tube having a coiled section within the urinary tract from the indwelling catheter through the portion of the urinary canal surrounded by the sphincter muscle and out of the exterior opening;

inflating the balloon within the bladder by delivering fluid through the inflation tube and into the balloon;

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- retaining the indwelling catheter against proximal movement from the use position by contacting the inflated balloon with the bladder;
- retaining the indwelling catheter against distal movement from the use position by contacting the coiled section with a constriction of the urinary tract caused by the sphincter muscle at a location proximally adjacent to the constriction; and
- draining urine through the indwelling catheter from the bladder to a position in the urinary tract distally adjacent to the sphincter muscle.
- 15 50. A method as defined in claim 49, further comprising:
retaining the indwelling catheter against distal movement from the use position by contacting the coiled section with the urinary canal.
51. A method as defined in claim 50, further comprising:
resiliently deflecting the coiled section in a transverse dimension.
52. A method as defined in claim 50, further comprising:
resiliently deflecting the coiled section in a longitudinal dimension.
53. A method as defined in claim 49, further comprising:
withdrawing the indwelling catheter from the urinary tract by moving the inflation tube proximally at the exterior opening.
54. A method as defined in claim 53, further comprising:
resiliently deflecting the coiled section to a lesser transverse dimension while moving the inflation tube proximally when withdrawing the indwelling catheter.
55. A method as defined in claim 49, further comprising:
attaching the indwelling catheter to an insertion tool;
inserting the indwelling catheter into the urinary tract from the exterior opening while the indwelling catheter is connected to the insertion tool;
- 5 manipulating the insertion tool to position the indwelling catheter in the use position;
detaching the insertion tool from the indwelling catheter after the indwelling catheter has been positioned in the use position; and

10 withdrawing the insertion tool from the urinary tract after detaching
the insertion tool from the indwelling catheter.

56. A method as defined in claim 55, further comprising:

extending the insertion tool through the coiled section of the inflation
tube while the indwelling catheter is attached to the insertion tool.

57. A method as defined in claim 56, further comprising:

withdrawing the insertion tool from within the coiled section after
detaching the insertion tool from the indwelling catheter.

58. A method as defined in claim 55, further comprising:

attaching the indwelling catheter to the insertion tool by connecting a
selectively disconnectable bridging structure between the indwelling catheter and
the insertion tool;

5 detaching the catheter from the insertion tool by disconnecting the
bridging structure to permit separating the indwelling catheter from the insertion
tool.

59. A method as defined in claim 58, further comprising:

using a cord which extends between the indwelling catheter and the
insertion tool as the bridging structure; and

5 eliminating the extension of the cord between the indwelling catheter
and the insertion tool when disconnecting the bridging structure.

60. A method as defined in claim 59, further comprising:

extending an interior channel between the first and second opposite
ends of the insertion tool; and

5 establishing a fluid communication path between the interior channel
of the insertion tool and into the interior passageway of the indwelling catheter
when the insertion tool is attached to the indwelling catheter.

61. A method as defined in claim 60, further comprising:

extending the cord into the interior channel of the insertion tool when
the bridging structure connects the indwelling catheter to the insertion tool.

62. A method as defined in claim 60, further comprising:

extending the cord into the interior channel to the second end of the insertion tool when the bridging structure connects the indwelling catheter to the insertion tool.

63. A method as defined in claim 62, further comprising:

eliminating the extension of the cord between the indwelling catheter and the insertion tool when disconnecting the bridging structure by distally moving the cord at the second end of the insertion tool.

64. A method as defined in claim 62, further comprising:

anchoring an end of the cord at the second end of the insertion tool.

65. A method as defined in claim 55, further comprising:

extending an interior channel between the first and second opposite ends of the insertion tool; and

5 establishing a fluid communication path between the interior channel of the insertion tool and into the interior passageway of the indwelling catheter when the insertion tool is attached to the indwelling catheter.

66. A method as defined in claim 65, further comprising:

communicating flushing fluid through the interior channel of the insertion tool and into the interior passageway of the indwelling catheter.

67. A method as defined in claim 65, further comprising:

communicating flushing fluid through the interior channel of the insertion tool and into the interior passageway of the indwelling catheter to remove obstructions from within the interior passageway of the indwelling catheter.

68. A method as defined in claim 65, further comprising:

communicating flushing fluid through the interior channel of the insertion tool and into the interior passageway of the indwelling catheter to remove blood clot from within the interior passageway of the indwelling catheter.

69. A method as defined in claim 68, used after completing a surgical procedure on a prostate gland for substantially diverting urine flow from contact with tissue of the prostate gland affected by the surgical procedure.

70. A method as defined in claim 65, further comprising:

supplying flushing fluid into the interior channel of the insertion tool at the second end of the insertion tool to deliver the flushing fluid into the interior passageway of the indwelling catheter.

71. A method as defined in claim 49, used after completing a surgical procedure on a prostate gland, further comprising:

substantially diverting urine flow from contact with tissue of the prostate gland affected by the surgical procedure by locating the indwelling catheter in the use position.

72. A method of using an indwelling catheter and an insertion tool to drain urine in a urinary tract which includes a urinary canal that extends from a bladder to an exterior opening with a urinary sphincter muscle which surrounds the urinary canal at a position between the bladder and the exterior opening,

comprising:

attaching the indwelling catheter to the insertion tool at a separable connection;

temporarily inseparably connecting the indwelling catheter and the insertion tool at the separable connection to maintain the attachment of the indwelling catheter to the insertion tool at the separable connection;

inserting the indwelling catheter into the urinary tract from the exterior opening while the indwelling catheter is inseparably connected to the insertion tool;

manipulating the insertion tool to position the inseparably connected indwelling catheter in a use position in which a distal end of the indwelling catheter is located in the bladder and a proximal end of the indwelling catheter is located distally adjacent to the sphincter muscle;

draining urine from the bladder through the exterior opening through an interior passageway in the indwelling catheter and an interior channel in the insertion tool;

eliminating the temporary inseparable connection of the indwelling catheter and the insertion tool after the indwelling catheter has been located in the use position;

detaching the insertion tool from the indwelling catheter without disturbing the indwelling catheter from the use position after the temporary
25 inseparable connection has been eliminated; and
withdrawing the insertion tool from the urinary tract after detaching the insertion tool from the indwelling catheter.

73. A method as defined in claim 72, further comprising:
bridging between the indwelling catheter and the insertion tool that the separable connection to temporarily inseparably connect the indwelling catheter and the insertion tool.

74. A method as defined in claim 73, further comprising:
extending a cord between the indwelling catheter and the insertion tool at the separable connection to bridge between the indwelling catheter and the insertion tool.

75. A method as defined in claim 74, further comprising:
eliminating the extension of the cord between the indwelling catheter and the insertion tool at the separable connection to eliminate the temporary inseparable connection.

76. A method as defined in claim 75, further comprising:
extending the cord from the separable connection through the interior channel of the insertion tool.

77. A method as defined in claim 75, further comprising:
extending an end of the cord from the separable connection through the interior channel of the insertion tool to a position outside of the exterior opening and outside of the interior channel of the insertion tool.

78. A method as defined in claim 77, further comprising:
eliminating the extension of the cord between the indwelling catheter and the insertion tool at the separable connection by moving the end of the cord distally at the outside of the insertion tool.

79. A method as defined in claim 72, further comprising:
flushing the interior passageway of the indwelling catheter with flushing fluid before eliminating the temporary inseparable connection.

80. A method as defined in claim 79, further comprising:
flushing the interior passageway of the indwelling catheter with
flushing fluid supplied through the interior channel of the insertion tool before
eliminating the temporary inseparable connection.
81. A method as defined in claim 79, further comprising:
flushing the interior passageway of the indwelling catheter to remove
obstructions from the interior passageway of the indwelling catheter before
eliminating the temporary inseparable connection.
82. A method as defined in claim 79, further comprising:
flushing the interior passageway of the indwelling catheter to remove
blood clots from the interior passageway of the indwelling catheter before
eliminating the temporary inseparable connection.
83. A method as defined in claim 72, further comprising:
including an inflatable balloon on the indwelling catheter;
extending an inflation tube within the urinary tract from the indwelling
catheter through the portion of the urinary canal surrounded by the sphincter
5 muscle and out of the exterior opening; and
resisting proximal movement of the indwelling catheter from the use
position by inflating the balloon within the bladder with inflation fluid delivered
through the inflation tube.
84. A method as defined in claim 83, further comprising:
including a configuration section on the inflation tube at a location
adjacent to and proximal of the sphincter muscle when the indwelling catheter is
located in the use position; and
5 resisting distal movement of the indwelling catheter from the use
position by contacting the configuration section with a constriction of the urinary
tract caused by constriction of the sphincter muscle at a location proximal of the
constriction.
85. A method as defined in claim 84, further comprising:
using a coiled section of the inflation tube as the configuration
section;

inserting the insertion tool through the coiled section of the inflation
5 tube; and

maintaining the insertion tool within the coiled section of the inflation
tube until after the insertion tool is detached from the indwelling catheter.

86. A method as defined in claim 85, further comprising:

moving the insertion tool proximally through the coiled section when
withdrawing the insertion tool from the urinary tract.

87. A method as defined in claim 83, further comprising:

removing the indwelling catheter from the use position by deflating
the balloon and moving the inflation tube proximally from the exterior opening to
pull the indwelling catheter through the urinary tract out of the exterior opening.

88. A method of maintaining an internal passageway through an
indwelling catheter free of obstructions caused by blood clots after a surgical
procedure performed on a prostate gland, comprising:

using the indwelling catheter in a urinary tract which includes a
5 urinary canal that extends from a bladder through the prostate gland to an exterior
opening, the urinary tract also including a urinary sphincter muscle which
surrounds the urinary canal at a position proximal of the prostate gland:

inserting the indwelling catheter in the urinary tract after performing a
surgical procedure on the prostate gland;

10 positioning the indwelling catheter in a use position within the urinary
tract in which a distal end of the indwelling catheter is located within the bladder
and a proximal end of the indwelling catheter is located at a position distally
adjacent to the sphincter muscle;

retaining the indwelling catheter in the use position;

15 draining urine and blood from the prostate gland which accumulates
in the bladder through an interior passageway of the indwelling catheter;

flushing the interior passageway of the indwelling catheter with
flushing fluid supplied from the exterior opening through the urinary canal to the
interior passageway to remove obstructions caused by blood clots within the
20 interior passageway.

89. A method as defined in claim 88, further comprising:
attaching the indwelling catheter to a insertion tool at a separable
connection;
inserting the indwelling catheter into the urinary tract from the exterior
opening while the indwelling catheter is attached to the insertion tool;
5 manipulating the insertion tool proximally of the exterior opening to
position the indwelling catheter in the use position; and
flushing the interior passageway of the indwelling catheter with
flushing fluid supplied through an interior channel of the insertion tool at the
10 exterior opening.
90. A method as defined in claim 89, further comprising:
detaching the insertion tool from the indwelling catheter at the
separable connection after the interior passageway of the indwelling catheter has
been flushed with flushing fluid; and
5 withdrawing the insertion tool from the urinary canal after blood clots
have been removed from the interior passageway.
91. A method as defined in claim 90, further comprising:
detaching the indwelling catheter from the insertion tool and
withdrawing the insertion tool from the urinary canal after substantial risks of
obstructions from blood clots have subsided.